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Please amend the claims as follows:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) An apparatus as defined in  
claim 2 further including for removing dissolved gases from  
water to be evaporated in connection with a falling film  
evaporator, which apparatus comprises:

5       an arrangement of vertical evaporator channels which  
convert water passing therethrough into vapor;

      a trough having a perforated bottom, the trough lying  
above the upper end of the evaporator channel arrangement;

10      at least one spraying device for breaking heated  
feed-water into a spray of droplets having a spray pattern  
substantially corresponding to an area of an upper end of the  
evaporator channel arrangement; and,

15      at least one separated gas outlet for the removal of  
gases separated from the sprayed droplets prior to the droplets  
entering the upper end of the evaporator channel arrangement  
reducing dissolved gas contamination of the vapor.

4. (Currently Amended) The apparatus as defined in  
claim 2 3 further including:

5       a substantially hemispherical chamber covering the  
upper end of the evaporator channel arrangement such that the  
upper end of the evaporator channel arrangement forms a plane  
side of the hemispherical chamber; and,

      the separated gas outlet being defined in the  
hemispherical chamber for removing the separated gases before  
they can enter the evaporator channel arrangement.

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5. (Previously Amended) The apparatus as defined in claim 3, further including:

a chamber covering the upper end of the evaporator channel arrangement, the separated gas outlet being defined in  
5 the chamber.

6. (Currently Amended) A method of feeding water to heat transfer surfaces of a falling film evaporator having vertical evaporation channels having upper and lower ends, the method comprising:

5 spraying drops of water with absorbed atmospheric gases to distribute the water over the upper ends of the vertical evaporation channels of the falling film evaporator;

10 simultaneously with the spraying, separating the atmospheric gases from the water and discharging the separated atmospheric gases such that the atmospheric gases are removed from the water and the water is distributed over the upper ends of the vertical evaporation channels in the same operation;

15 evaporating the water from which the atmospheric gases have been removed in the vertical evaporation channels to generate water vapor with reduced atmospheric gas contamination; and,

20 discharging the water vapor with reduced atmospheric gas contamination from the lower ends of the vertical evaporation channel separately from the separated gases, and maintaining the water vapor separate from the separated gases to prevent dilution of the water vapor with whereby re-dissolution of the separated gases is prevented.

7. (Original) The method as defined in claim 6 further including:

5 collecting the sprayed droplets into a layer of water above the upper ends of the vertical evaporation channels;

separating additional atmospheric gases from the water layer;

feeding water from the water layer into the upper ends of the vertical evaporation channels.

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8. (Cancelled)

9. (Currently Amended) The apparatus as set forth in claim 8 10 wherein the vertical evaporating channel upper end arrangement is confined to a circular area and further including ~~a hemispherical~~ the chamber mounted to the vertical evaporating channel upper end arrangement is hemispherical.

10. (Currently Amended) ~~The An apparatus as defined in claim 9 further including for removing dissolved atmospheric gases from water, the apparatus comprising:~~  
a falling film evaporator which includes a plurality of vertical evaporating channels, the vertical evaporating channels having upper ends arranged in an evaporator channel upper end arrangement for receiving water to be vaporized, product vapor exiting from a lower end of the channels;

10 a chamber covering the evaporator channel upper end arrangement;

a perforated plate mounted in the chamber above and separated from the evaporator channel upper end arrangement;  
at least one spraying device disposed in the chamber to break the water into a spray of droplets, the spray of droplets being sprayed onto the plate, the water passing through perforations in the plate to the evaporator channel upper ends; and

20 at least one dissolved gas outlet from the chamber for removal of the atmospheric gases separated from the water droplets during spraying before the water droplets enter the evaporating channels, such that the product vapor has a lower concentration of atmospheric gases than the water.

11. (Cancelled)

12. (Currently Amended) An apparatus for generating steam with a reduced atmospheric gas content, the apparatus comprising:

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5       a falling film evaporator including a plurality of heated vertical evaporation tubes which receive liquid feed water at an upper ends and discharge steam at a lower ends;

      a feed line for supplying feed water which contains dissolved water soluble atmospheric gases;

10      a spray means for, in the same operation, (1) distributing the feed water over the upper ends of the vertical evaporation tubes and for (2) liberating the dissolved water soluble atmospheric gases from the feed water before the feed water enters the upper ends of the vertical evaporation tubes; and,

15      a separated atmospheric gas outlet adjacent the upper ends of the evaporation tubes through which the separated atmospheric gases are discharged;

20      the vertical evaporation tubes evaporating the feed water from which the atmospheric gases have been liberated to form steam and discharging the steam at the vertical evaporation tube lower ends, a means for removing the steam separate from the ~~liberated water soluble atmospheric gases~~ such that the product steam at the vertical evaporation tube lower ends has a lower content of water soluble atmospheric gases than the feed water.